

# Public/Private Partnerships – A Case Study: Los Angeles Metro's Compressed Natural Gas Fueling Facilities



# Historical Perspective

- Metro Board of Directors approves Alternative Fuel Initiative Policy in October 1993.
- Metro went from fueling 540 CNG buses in 1999, using four (4) Metro designed and built CNG fueling facilities, to currently fueling 2,490 CNG buses at 10 CNG facilities. The largest alternative fuel fleet in the country.
- Total Capital Improvements equaling \$40m.



# PROCUREMENT STRATEGIES

## Traditional Procurements – Sealed Bid Only

- Design, Bid, Build – Requires agency developed functional specifications and drawings defining all elements of the CNG fueling facility.
- Design/Build – Places the design responsibility on a design and construction team. Reduces overall procurement process time, and shifts risks of change orders to Design/Build team.
- Design/Build and Operate – Same advantages as Design/Build strategy, however the operational control of the agency becomes minimized.



**Metro**

# PROCUREMENT STRATEGIES

## Public/Private Partnership – Primary Advantages

- Design/Finance/Build/Operate & Maintain – Use of RFP, may include evaluation factors other than cost of Capital Improvement.

Design – Functional design responsibility on the shoulders of industry experts. Public agencies by nature are risk averse. Functional specifications reflect that risk aversion.

Finance - Allows public agencies to offset expensive capital infrastructure in a unique way.

# PROCUREMENT STRATEGIES

## Public/Private Partnership – Primary Advantages Cont.

Build - The focus of the system is not in reducing capital costs. Focus is on life cycle costs.

Maintenance - The efficiency of the maintenance functions are maximized because source selection evaluation costs are evaluated on a life-cycle basis.

Operation – The agency focus shifts away from supporting fueling facilities to other mission critical tasks.

## California Government Code 5956 et seq.

- Permits public agencies to use private investment capital to establish true turn-key development of “Fee Producing” capital infrastructure.
- Qualifying Infrastructure – bus and rail Lines, bridges & highways, airports, harbors, public water projects, sports venues, etc.
- Public/Private Partnerships may take up to 35 years – Allowing large capital improvements with small annual outlays.
- Frees limited capital funding for other needed projects that might not otherwise be built.

## California Government Code 5956 et seq.

- Request For Proposal – Allows for public agencies to use factors other than price for contract award.
- Federal funding not affected – Public/Private Partnerships qualify for Capital Improvement matching money, if the facility is structured as a capital lease, and is advantageous on a net present value basis.

# Business Model

- Firm fixed pricing of all life cycle factors:
  - Construction costs
  - Interest on leased facilities
  - Cost of CNG Compression
  - Energy cost to drive CNG engines.
  - Maintenance costs, including labor, spares, repairs and overhauls.
  - Warranty – Two year warranty beginning in year 11.

# It's the Financing that Counts

1. The Private Partner can directly finance the project.
2. The Private Partner can be required to bring a finance partner to the deal.
3. The public agency can compete the finance portion separately from the design/build/operate and maintenance portions of the project.

# What's Next?

## Regional Rebuild Center Renewable Energy Project

- Solar PV Energy Creation
- Power Consumption Efficiency Improvements (HVAC, Boilers, Lighting)
- State Energy Rebates, Private Financing
- Electricity kWh Rate increases could allow for ROI in less than 20 years.

# In Summary

- Public/Private Partnerships offer public agencies a unique tool for obtaining large capital improvements, that if properly structured can yield benefits in performance, reliability, reduced risk, and cost savings.
- The application of a Public/Private Partnership to a project is only limited by the imagination of those entrusted with executing the completion of that project.

“There are risks and costs to a program of action.  
But they are far less than the long-range risks and costs of comfortable inaction.”

-- President John F. Kennedy

# Getting Started: How Did We Do It

- Performance Specification versus Functional Specifications.
  - Metro's unique operational needs were best defined as performance based objectives/requirements.
    - Fuel 365 days a year, without fail. (Equates to reliability)
    - Fuel a specific number of buses very day. (Equates to Capacity)
    - Fuel all buses within a specific fueling window. (Equates to efficiency and capacity)
    - Train, direct and oversee maintenance personnel. (Equates to maintainability)
    - Establish a fixed price for compression energy. (Equates to efficiency)
    - Do it for ten years. (Establishes true life cycle costs)

# Business Terms

- Commercial Incentives to Match Performance Requirements
  - Liquidated Damages tied to facility build completion. Turn-Key approach provided incentives against potential Cost and Schedule overruns.
  - Liquidated Damages tied to fueling everyday without fail.
  - Commercial Incentives help motivate positive functional design, reliability, redundancy, efficiency and life cycle cost.

# The RFP & Source Selection

- Technically Acceptable Price Vs. Other Best Value Processes
  - Establishing evaluation criteria that requires a very high level of performance and past experience, makes the difference between sourcing a sound CNG dispenser and a Dixie cup dispenser.
  - Metro hired an industry leading consultant to assist the source selection team in determining proposer qualifications.
  - Apply an net present value analysis against the Public/Private Partnership to see if the traditional Design/bid/Build, or Design/Build models are more cost effective. This is important if federal matching dollars are involved in a capital lease.